

How Punch Cards were Made and Used

Punch cards originated in the 1720s, where they were used to control looms. People such as Semen Korsakov and Charles Babbage later used the punch cards for data.

Written Code

People would usually write out the code for each card before punching the holes into the cards. Below are a couple of translation/reference sheets for the code.

CODE TRANSLATION TABLE (Contd)					CODE TRANSLATION TABLE (Contd)				
Dec.	Hex	Instruction (and format)	Graphics and Controls (BCDIC) (BCDIC) (ASCII)	Card Code (BCDIC)	Dec.	Hex	Instruction (and format)	Graphics and Controls (BCDIC) (BCDIC) (ASCII)	Card Code (BCDIC)
298	80	LSM	-5	0000 0000	298	C0	7	0	0 A 8 2 12-0
299	81	LSM	-5	0000 0001	299	C1	A	A	0 A 1 12-1
300	82	LSM	-5	0000 0010	300	C2	B	B	0 A 2 12-2
301	83	LSM	-5	0000 0011	301	C3	C	C	0 A 3 12-3
302	84	LSM	-5	0000 0100	302	C4	D	D	0 A 4 12-4
303	85	LSM	-5	0000 0101	303	C5	E	E	0 A 5 12-5
304	86	LSM	-5	0000 0110	304	C6	F	F	0 A 6 12-6
305	87	LSM	-5	0000 0111	305	C7	G	G	0 A 7 12-7
306	88	LSM	-5	0000 1000	306	C8	H	H	0 A 8 12-8
307	89	LSM	-5	0000 1001	307	C9	I	I	0 A 9 12-9
308	8A	LSM	-5	0000 1010	308	CA	J	J	0 A 10 12-10
309	8B	LSM	-5	0000 1011	309	CB	K	K	0 A 11 12-11
310	8C	LSM	-5	0000 1100	310	CC	L	L	0 A 12 12-12
311	8D	LSM	-5	0000 1101	311	CD	M	M	0 A 13 12-13
312	8E	LSM	-5	0000 1110	312	CE	N	N	0 A 14 12-14
313	8F	LSM	-5	0000 1111	313	CF	O	O	0 A 15 12-15
314	90	LSM	-5	0001 0000	314	D0	P	P	0 A 16 12-16
315	91	LSM	-5	0001 0001	315	D1	Q	Q	0 A 17 12-17
316	92	LSM	-5	0001 0010	316	D2	R	R	0 A 18 12-18
317	93	LSM	-5	0001 0011	317	D3	S	S	0 A 19 12-19
318	94	LSM	-5	0001 0100	318	D4	T	T	0 A 20 12-20
319	95	LSM	-5	0001 0101	319	D5	U	U	0 A 21 12-21
320	96	LSM	-5	0001 0110	320	D6	V	V	0 A 22 12-22
321	97	LSM	-5	0001 0111	321	D7	W	W	0 A 23 12-23
322	98	LSM	-5	0001 1000	322	D8	X	X	0 A 24 12-24
323	99	LSM	-5	0001 1001	323	D9	Y	Y	0 A 25 12-25
324	9A	LSM	-5	0001 1010	324	DA	Z	Z	0 A 26 12-26
325	9B	LSM	-5	0001 1011	325	DB	[[0 A 27 12-27
326	9C	LSM	-5	0001 1100	326	DC	\	\	0 A 28 12-28
327	9D	LSM	-5	0001 1101	327	DD]]	0 A 29 12-29
328	9E	LSM	-5	0001 1110	328	DE	^	^	0 A 30 12-30
329	9F	LSM	-5	0001 1111	329	DF	_	_	0 A 31 12-31
330	A0	LSM	-5	0010 0000	330	E0	`	`	0 A 32 12-32
331	A1	LSM	-5	0010 0001	331	E1	a	a	0 A 33 12-33
332	A2	LSM	-5	0010 0010	332	E2	b	b	0 A 34 12-34
333	A3	LSM	-5	0010 0011	333	E3	c	c	0 A 35 12-35
334	A4	LSM	-5	0010 0100	334	E4	d	d	0 A 36 12-36
335	A5	LSM	-5	0010 0101	335	E5	e	e	0 A 37 12-37
336	A6	LSM	-5	0010 0110	336	E6	f	f	0 A 38 12-38
337	A7	LSM	-5	0010 0111	337	E7	g	g	0 A 39 12-39
338	A8	LSM	-5	0010 1000	338	E8	h	h	0 A 40 12-40
339	A9	LSM	-5	0010 1001	339	E9	i	i	0 A 41 12-41
340	AA	LSM	-5	0010 1010	340	EA	j	j	0 A 42 12-42
341	AB	LSM	-5	0010 1011	341	EB	k	k	0 A 43 12-43
342	AC	LSM	-5	0010 1100	342	EC	l	l	0 A 44 12-44
343	AD	LSM	-5	0010 1101	343	ED	m	m	0 A 45 12-45
344	AE	LSM	-5	0010 1110	344	EE	n	n	0 A 46 12-46
345	AF	LSM	-5	0010 1111	345	EF	o	o	0 A 47 12-47
346	B0	LSM	-5	0011 0000	346	F0	p	p	0 A 48 12-48
347	B1	LSM	-5	0011 0001	347	F1	q	q	0 A 49 12-49
348	B2	LSM	-5	0011 0010	348	F2	r	r	0 A 50 12-50
349	B3	LSM	-5	0011 0011	349	F3	s	s	0 A 51 12-51
350	B4	LSM	-5	0011 0100	350	F4	t	t	0 A 52 12-52
351	B5	LSM	-5	0011 0101	351	F5	u	u	0 A 53 12-53
352	B6	LSM	-5	0011 0110	352	F6	v	v	0 A 54 12-54
353	B7	LSM	-5	0011 0111	353	F7	w	w	0 A 55 12-55
354	B8	LSM	-5	0011 1000	354	F8	x	x	0 A 56 12-56
355	B9	LSM	-5	0011 1001	355	F9	y	y	0 A 57 12-57
356	BA	LSM	-5	0011 1010	356	FA	z	z	0 A 58 12-58
357	BB	LSM	-5	0011 1011	357	FB	[[0 A 59 12-59
358	BC	LSM	-5	0011 1100	358	FB	\	\	0 A 60 12-60
359	BD	LSM	-5	0011 1101	359	FD]]	0 A 61 12-61
360	BE	LSM	-5	0011 1110	360	FE	^	^	0 A 62 12-62
361	BF	LSM	-5	0011 1111	361	FF	_	_	0 A 63 12-63

STEP 01

Punching Cards

Cards were usually punched with machines. Below are a couple pictures of card punching machines.

STEP 02



Card Reading

Once a deck of cards have been made, they could be read. They were fed into a machine which would read the cards. The machines could read from 300 up to 2,000 cards per minute! Below is a card reading machine.

STEP 03

